

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
28 April 2005 (28.04.2005)

PCT

(10) International Publication Number
WO 2005/037862 A1

(51) International Patent Classification⁷: **C07K 7/64**,
A61K 38/12, A61P 35/00 // C07K 14/81, A61K 38/55

(21) International Application Number:
PCT/FI2004/050150

(22) International Filing Date: 15 October 2004 (15.10.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
20031528 17 October 2003 (17.10.2003) FI

(71) Applicant (for all designated States except US): **CTT
CANCER TARGETING TECHNOLOGIES OY**
[FI/FI]; Viikinkaari 4 C, FI-00790 HELSINKI (FI).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **ZHU, Ying** [CN/FI];
Maapadontie 5 D 116, FI-00640 HELSINKI (FI).
VALTANEN, Heli [FI/FI]; Massbyntie 96/6, FI-01150
SÖDERKULLA (FI). **KAUKINEN, Sami** [FI/FI]; Tilan-
hoitajankaari 17 A 4, FI-00710 HELSINKI (FI). **PEÑATE
MEDINA, Oula** [FI/FI]; Karjalankatu 18 A 7, FI-00520
HELSINKI (FI). **SIMPURA, Ilkka** [FI/FI]; Jalkamyllyn-
tie 10 B, FI-00920 HELSINKI (FI).

(74) Agent: **OY JALO ANT-WUORINEN AB**; Iso
Roobertinkatu 4-6 A, FI-00120 HELSINKI (FI).

(81) Designated States (unless otherwise indicated, for every
kind of national protection available): AE, AG, AL, AM,
AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,
KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,
MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG,
PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,
TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM,
ZW.

(84) Designated States (unless otherwise indicated, for every
kind of regional protection available): ARIPO (BW, GH,
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,
ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,
FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI,
SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ,
GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report
- before the expiration of the time limit for amending the
claims and to be republished in the event of receipt of
amendments

For two-letter codes and other abbreviations, refer to the "Guid-
ance Notes on Codes and Abbreviations" appearing at the begin-
ning of each regular issue of the PCT Gazette.

(54) Title: **TARGETING COMPOSITIONS AND PREPARATION THEREOF**

(57) Abstract: The present invention relates to targeted cancer therapy and tumour imaging, and concerns specifically new deriva-
tives of small matrix metalloproteinase inhibitor peptides. These new derivatives are the hydrophilic peptides GRENYHGCTTH-
WGFILC and derivatives thereof. These peptides have an increased solubility and may be used in the preparation of targeting com-
positions together with suitable linker molecules such as PEG. Such targeting compositions are useful in therapeutics and imaging
liposome compositions for cancer treatment and diagnostics.

WO 2005/037862 A1